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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,569

01/27/2005

Osamu Chujo

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5858

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7590

10/19/2007

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EXAMINER

CHANG, VICTOR S

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/523,569	<b>Applicant(s)</b> CHUJO ET AL.	
	<b>Examiner</b> Victor S. Chang	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-20 is/are pending in the application.
- 4a) Of the above claim(s) 6-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Introduction***

1. Applicants' amendments and remarks filed on 10/10/07 have been entered. Claims 1 and 2 have been amended. New claim 20 has been entered. Claims 1, 2, 4, 5 and 20 are active.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. In response to the amendments, the grounds of rejection have been updated as set forth below.

### ***Rejections Based on Prior Art***

4. Claims 1, 2, 4, 5 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iioka, et al. [US 4435344] in view of JP 2000-177039 [machine translation].

Iioka's invention relates to a heat-insulating paper container. The paper container is prepared by heating a container comprising a body member and a bottom member, wherein one surface of at least the container body member is coated or laminated with a thermoplastic synthetic resin film, e.g., a polyethylene film, and the other surface of the body member is coated or laminated with the same or different thermoplastic synthetic resin film or an aluminum foil, to thereby foam the thermoplastic synthetic resin film and form a heat-insulating layer on at least one surface of the container [abstract]. When the paper is heated, the moisture inherently contained in the paper is evaporated and the evaporated moisture foams or causes a foaming action on the polyethylene film [col. 2, ll. 3-20]. Any heating means such as hot air, electric heat

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or microwaves can be used. Heating by hot air or electric heat in a tunnel having transporting means such as conveyor is preferred for commercial production [col. 4, ll. 5-11].

For claims 1, 2, 4 and 5, Iioka lacks a teaching that a vacuum suctioning device is used to increase the foaming height of the outer surface of the foam layer (foaming plane). However, JP '039 relates to a foamed laminated sheet. Fig. 2 shows that a polyethylene film 13 (a contiguous synthetic film) is laminated (adhered) to a surface of a paperboard 10 (base paper) with a joining inhibitor 11 applied in a spotted fashion [0009]. Foaming is performed by evaporation of the moisture contained in paper [0006]. A foaming sheet is obtained by heating the laminate film in a vacuum suction device, and it becomes possible to obtain a foaming lamination sheet, without using a heating furnace (oven) like the conventional foaming lamination sheet. For this reason, the productivity improves, and requires less production space [0018]. It would have been obvious to one of ordinary skill in the art to modify Iioka's heating method of a tunnel/conveyor device with a vacuum suction device of JP '039, motivated by the desire to obtain an improved productivity. Regarding the newly amended limitation "a foaming plane comprising a group of adjacent foaming cells cell group on the outer surface of the base paper", since Iioka teaches the same foaming paper structure and composition, the same foaming plane structure is expected to be obviously provided by practicing the combined teachings for the same end use. Regarding the gap generating surface of the die, since it is not a structural limitation of the claimed invention, rather a component of the die, it is not being given a patentable weight. Further, even if it is considered, since JP '039 teaches that it is possible to adjust the magnitude of the foaming of the laminate film 13 [0017], a workable foaming height is also deemed to be obviously provided by practicing the combined teachings for the same end use.

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Similarly, for claim 20, since the combined teachings of prior art render the claimed invention obvious, a workable expansion ration is considered to be obviously provided by practicing the combined teachings for the same end use.

### ***Response to Argument***

5. Applicants argue [Remarks, page 7] that the presence of the critical joining inhibitor taught by JP '039 renders it impossible to form a contiguous film laminate. However, the claimed limitation is “a contiguous synthetic resin film laminated on the base paper”, i.e., a continuous film being laminated, not a contiguous laminate between the layers. Nevertheless, since Iioka teaches the same foaming paper structure, applicants’ argument is moot.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 7:00 am - 5:00 pm, Tuesday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor S Chang/  
Primary Examiner, Art Unit 1794

10/18/2007